

# KHIIS CALENDAR YEAR 2007 PREMIUM DATA

Preliminary draft reports for technical feedback only, not to be used for reporting purposes

## Developmental draft analysis of individual premium payments in the Kansas small group market

TABLE 1. ORIGINAL DATA VALUES (INCLUDING ALL OUTLIERS)

			PREMIUM VALUE DISTRIBUTION									OUTLIER CUTOFF THRESHOLDS (FENCES)			
Plan Type	NAICNo	Members	Low	High	Total Prem	Mean	Std Dev	Median	Mode	25th Pctile	75th Pctile	Lower Inner	Upper Inner	Lower Outer	Upper Outer
Indemnity	17	28,469	(495.97)	52,709.10	11,173,633.65	392.48	3,517.69	45.60	-	-	135.36	(203.04)	338.40	(406.08)	541.44
PPO	19	361,356	(2,838.08)	61,596.07	134,966,734.10	373.50	560.18	311.53	-	164.14	507.43	(350.80)	1,022.37	(865.74)	1,537.31
POS	7	124,555	-	52,709.10	41,683,120.38	334.66	948.22	276.27	278.77	62.93	458.91	(531.05)	1,052.88	(1,125.02)	1,646.86
Supplemental	13	140,878	-	4,962.28	21,865,610.43	155.21	135.07	142.39	177.13	115.57	177.13	23.23	269.47	(69.11)	361.81
Ancillary	14	46,375	(26,418.00)	2,883.33	2,188,918.71	47.20	287.52	6.50	6.50	6.50	18.00	(10.75)	35.25	(28.00)	52.50
HMO	8	73,008	-	2,710.83	36,108,010.03	494.58	314.95	395.20	1,011.39	276.15	732.77	(408.78)	1,417.70	(1,093.71)	2,102.63
Unknown	9	14,063	(628.34)	1,909.44	7,309,977.88	519.80	247.89	507.14	507.14	422.11	654.07	74.17	1,002.01	(273.77)	1,349.95
Total Population	33	788,704	(26,418.00)	61,596.07	255,296,005.19	323.69	874.70	227.00	-	101.46	429.47	(390.55)	921.48	(882.56)	1,413.49

Count Primary Member 752,093

Difference 36,611

TABLE 2. DATA AFTER ELIMINATING EXTREME OUTLIERS (MEMBER PREMIUM RECORDS <= 0.00 AND >= UPPER OUTER VALUES REPORTED IN TABLE 1).

			PREMIUM VALUE DISTRIBUTION									NO. OF OUTLIERS EXCLUDED		
Plan Type	NAICNo	Members	Low	High	Total Prem	Mean	Std Dev	Median	Mode	25th Pctile	75th Pctile	Lower Cut Points	Upper Cut Points	Total Cut Points
Indemnity	16	19,426	0.38	541.10	2,281,261.44	117.43	119.13	70.80	22.36	35.75	157.53	7,446	1,597	9,043
PPO	19	346,102	0.01	1,535.43	131,656,869.03	380.40	274.80	321.03	809.08	189.37	521.75	14,536	718	15,254
POS	6	121,543	0.14	1,646.05	38,464,370.71	316.47	289.33	278.77	278.77	67.65	462.45	2,416	596	3,012
Supplemental	12	138,639	4.61	360.90	20,019,721.97	144.40	38.07	140.70	177.13	115.57	177.13	583	1,656	2,239
Ancillary	13	38,676	0.41	52.45	384,902.46	9.95	8.89	6.50	6.50	5.90	12.02	1,063	6,636	7,699
HMO	8	71,212	11.01	1,994.00	36,082,173.33	506.69	308.02	414.35	1,011.39	287.67	745.04	1,785	11	1,796
Unknown	7	12,959	1.05	1,347.00	7,276,484.56	561.50	199.24	507.14	507.14	441.77	679.22	1,077	27	1,104
Total Pop.	33	748,557	0.01	1,994.00	236,165,783.51	315.49	276.76	240.52	177.13	114.92	435.10	28,906	11,241	40,147

Count Primary Member 752,093

Difference (3,536)

### NOTES:

1. "Member" is defined as the distinct primary insured as identified by the NAIC number, membership ID, date of birth, and gender
2. The monthly premium is a surrogate value based on the total premium for a distinct member under the specific plan type divided by the number of occurrences of the distinct member/plan type combination
3. A member may have multiple plan types within a submission cycle or over a year so the count of members exceeds the actual number of distinct members
4. A number of carriers reported zero and negative premium values during the various submission cycles as evidenced by the low value column
5. Several carriers use certificate level reporting, claiming that they are not able to differentiate a single member from the entire certificate, thus reporting the entire group premium on each member of the group.
6. In table 1, lower inner fence:  $Q1 - 1.5 * IQ$ ; upper inner fence:  $Q2 + 1.5 * IQ$ ; lower outer fence:  $Q1 - 3 * IQ$ ; upper outer fence:  $Q2 + 3 * IQ$  where  $Q1$ : 25th percentile;  $Q2$ : 75th percentile;  $IQ$ : Interquartile Range =  $Q2 - Q1$
7. In table 2, the LOWER CUT POINTS, UPPER CUT POINTS, and TOTAL CUT POINTS columns indicate how many member premium records were eliminated using the LOWER and UPPER fence values as identified in the table heading.

DRAFT